

AMENDMENTS TO THE SPECIFICATION

In the Title

Please amend the Title of the Invention as follows:

METHOD AND APPARATUS FOR PROCESSING AUDIO SIGNALS TO
SIMULATE THREE-DIMENSIONAL AND WIDE EFFECTS

In the Specification

Please amend the paragraph beginning on page 3, line 23 as follows:

Next, the second left channel input signal 113 is processed by the low-pass filter processing unit 104 and the delaying processing unit 106, and the processed signal 117 will be subtracted ~~with~~-from the first right channel input signal 120 to produce a first right channel output signal 132. The second right channel input signal ~~113-121~~ is processed by the low-pass filter processing unit 105 and the delaying processing unit 107. The processed signal 125 will then be subtracted ~~with~~-from the first left channel input signal 110 to produce a first left channel output signal 131. Finally, the first left channel output signal 131 and the first right channel output signal 132 compensate for each other. With the above-mentioned processing steps, output audio sounds will have wide effects.

Please amend the paragraph beginning on page 5, line 16 as follows:

Next, the second left channel input signal 113 is processed by the low-pass filter processing unit 104 and the delaying processing unit 106, and the processed signal 117 will be subtracted ~~with~~-from the first right channel input signal 120 to produce a first right channel

output signal 132; the second right channel input signal ~~113-121~~ 121 is processed by the low-pass filter processing unit 105 and the delaying processing unit 107, and then the processed signal 125 will be subtracted ~~with~~ from the first left channel input signal 110 to produce a first left channel output signal 131. Finally, the first left channel output signal 131 and the first right channel output signal 132 compensate for each other. After the above-mentioned processing steps, output audio sounds will have wide effects. For obtaining better audio sounds, a gain processing sector is added behind the structure of the first embodiment, and comprises the third gain unit 201, the third subtracter 213, the fourth subtracter 214, and the fifth subtracter 215. The first left channel output signal 131 and the first right channel output signal 13 are further mixed at the subtracter 213 and then processed by the third gain unit 201. The output of the third gain unit 201 is subtracted from the first left channel output signal 131 by the fourth subtracter 214 to produce a second left channel output signal 231. Similarly, the output of the third gain unit 201 is subtracted from the first right channel output signal 132 by the fifth subtracter 215 to produce a second right channel output signal 232. Parts of the first left channel output signal 131 will be processed by the third gain unit 201 and subtracted from the first right channel output signal 132 to produce a second left channel output signal 231; parts of the first right channel output signal 132 will be processed by the third gain unit 201 and subtracted from the first left channel output signal 131 to produce a second right channel output signal 232. Therefore, 3D effects are strengthened in the output audio signals as well as wide effects.

Please amend the paragraph beginning on page 7, line 24 as follows:

Next, the second left channel input signal 113 is processed by the low-pass filter processing unit 104 and the delaying processing unit 107, and the processed signal 117 will be subtracted ~~with~~ from the first right channel input signal 120 to produce a first right channel output signal 132; the second right channel input signal ~~113~~ 121 is processed by the low-pass filter processing unit 105 and the delaying processing unit 106, and then the processed signal 125 will be subtracted ~~with~~ from the first left channel input signal 110 to produce a first left channel output signal 131. Finally, the first left channel output signal 131 and the first right channel output signal 132 will be compensated for each other. With the above-mentioned processing steps, output audio sounds will have wide effects. For obtaining better audio sounds, a gain processing sector is added behind the structure of the first embodiment, and which comprises the third gain unit 201, the third subtracter 213, the fourth subtracter 214, and the fifth subtracter 215. The first left channel output signal 131 and the first right channel output signal 13 are further mixed at the subtracter 213 and then processed by the third gain unit 201. The output of the third gain unit 201 is subtracted from the first left channel output signal 131 by the fourth subtracter 214 to produce a second left channel output signal 231. Similarly, the output of the third gain unit 201 is subtracted from the first right channel output signal 132 by the fifth subtracter 215 to produce a second right channel output signal 232. Parts of the first left channel output signal 131 will be processed by the third gain unit 201 and subtracted from the first right channel output signal 132 to produce a second left channel output signal 231; parts of the first right channel output signal 132 will be processed by the third gain unit 201 and subtracted from the first left channel output signal 131 to produce a second right channel output signal 232. Therefore, 3D effects are strengthened in the output audio signals as well as wide effects.